

Case Report

Iatrogenic injuries leading to suspicion of homicide

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Abstract

Injuries produced as a result of medical intervention may lead to confusion in certain cases during investigation and postmortem examination. Proper documentation of all interventions with the injuries, if produced, is of vital importance. The present case is a rare case where the iatrogenic injuries produced by a medical practitioner during the course of treatment of a case of suicidal hanging resulted in a suspicion being raised as to the nature of death. The suspicion was further strengthened by the lack of proper documentation and inappropriate/improper use of terminology of medicolegal significance.

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1. Introduction

Suicide is quite common in India. The incidence is more common among males.^{1,2} The place of occurrence is commonly a closed room or a secluded or lonely place. Circumstantial evidences is a key factor in the investigation of such cases to establish the suicidal nature of hanging. Presence of injuries over certain parts of the body, e.g. the face, bony prominences over the upper and lower limbs is not uncommon. These may be the result of impact with any hard object/surface at the time of convulsions during the process of hanging. The injuries are abrasions or at the most contusions. Homicidal hanging, though rare, may be associated with injuries over other parts of the body. When compared to hanging the marks of violence are much more in cases of strangulation and smothering. Thus, presence of facial and oral injuries in a case of hanging may raise doubts regarding the nature of hanging. Thus, to pinpoint the actual cause of such injuries a detailed history and examination of the case is of utmost importance. Examination of all medical records in treated cases is a key factor in the investigation of such cases.

2. Case report

A 45 years old female patient was brought to the emergency department at 6.30 PM in an unconscious state with a history of suicidal hanging. The incident occurred at about 10.15 AM at her residence in a village. The duration of suspension was not known. She was immediately shifted to the nearest rural hospital where an oropharyngeal airway tube was introduced by the attending doctor and was referred to the tertiary care centre for specialized treatment. A medical note stating the condition of the patient mentioning “strangulation mark on the neck” was handed over to the party by the treating physician.

Examination of the patient in the emergency department revealed:

Patient was unconscious, GCS score – 6.

Laboured breathing, stridor +.

Pulse – 110 beats/min. BP – 110/70 mmHg. SpO₂ – 96%.

Airway tube was in position. Suction through the airway tube revealed presence of mucus. The patient was put on a ventilator but expired after 30 min.

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Fig. 1. Ligature mark obliquely placed high up on the neck.



Fig. 2. Missing right upper central incisor tooth.

Autopsy examination of the deceased showed:

1. A ligature mark 26 cm long obliquely placed, non-continuous and high up in the neck above the level of the thyroid cartilage. The ligature mark was absent at the back of the neck and there was no impression of the knot. The width of the mark varied from 1 cm to 4 cm. The upper margin of the ligature mark was placed 5 cm from the tip of mastoid on the right side and 3.5 cm from the tip of mastoid on the left side. On the midline it was placed 7 cm above the sternal notch. The hyoid bone and the thyroid cartilage were found to be intact on dissection (Fig. 1).
2. An abrasion 1.5 cm × 1 cm on the back of right elbow 1.5 cm lateral to the tip of olecranon.
3. Multiple abrasions with contusions varying in size from 0.5 cm × 0.3 cm to 0.3 cm × 0.1 cm on the inner aspect of both upper and lower lips corresponding to the position of the incisor teeth.
4. A lacerated wound 1 cm × 0.6 cm × muscle deep on the right margin of the tongue adjacent to the second permanent molar tooth.
5. The upper right central incisor tooth was missing and blood clot was detected in the socket. The wound in the gum at the site of the missing tooth was a fresh one (Fig. 2).

3. Discussion

The injuries on the lips, tongue along with the missing incisor tooth raised doubts regarding the nature of death. Questions were raised as to whether death was due to smothering followed by postmortem suspension of the body to simulate hanging or these were evidences of smothering and death was due to homicidal strangulation. Matters were further complicated by the fact that the medical note from the rural hospital stated – “strangulation mark on the neck”.

In cases of smothering by a soft object though there may not be any external evidence of injury over the lips but there may be abrasions and contusions on the inner aspect of the lips corresponding to the incisor teeth. As per Gradwohl the most characteristic finding in smothering is the damage of the lips against the teeth or against hard edentulous gums.³ Dental injuries are also possible if forceful compression is applied over the mouth during smothering. Though in the present case the character of the ligature mark was that of hanging, it may be due to the fact that the victim was smothered and hanged immediately after. In such a case it is not unlikely to get a ligature mark with all the characteristics of hanging but also very difficult to differentiate it as a postmortem ligature mark as the time interval is very less and vital reaction may be present though minimum. Apart from this in cases of ligature strangulation by a person standing behind and pulling the ligature material upwards and backwards a ligature mark of similar appearance is not impossible.⁴ Absence of ligature mark at the back of the neck in strangulation may also be due to clothing or long hair being interposed between the ligature and the skin.³ In forensic literature, smothering followed by hanging to disguise as suicide have rarely been reported if at all but cases of homicidal strangulation disguised as suicidal hanging are on record.^{5,6} The medical note from the rural hospital strengthened the doubt in the autopsy surgeons mind in this aspect and the possibility of homicidal etiology had to be ruled out from every possible angle. Circumstantial evidence did not point to any homicidal etiology. Thorough verification of the medical records and interrogation of the physicians involved in the treatment of the woman revealed certain facts.

The attending physician at the rural hospital was not an expert in critical care medicine. Introduction of the airway tube by unskilled hands may sometimes lead to injuries over the lips. Forceful compression of the mouth piece with the guard may lead to the lips being compressed against the incisor teeth. In such a condition it is not impossible for

abrasions and contusions to be found at the inner surface of the lips. Lip injuries, mostly of the lower lips have been reported during endotracheal intubation.^{7,8} The injuries were further compounded by the fact that greater than normal force was necessary to open the mouth and place the airway tube in position because of masseter spasm produced by cerebral hypoxia and convulsion as a result of hanging.^{9,10}

Dental injuries during the process of oropharyngeal airway tube introduction have also been reported.¹¹ It has been found that the lower incisors are more likely to be injured during an urgent intubation or during oral airway insertion.¹² On the other hand the left upper incisor tooth was frequently reported to be fractured during laryngoscopy.¹³ In the present case the missing incisor tooth was not due to the effect of any injury but due to extraction. As disclosed by the attending physician the upper central incisor tooth was loose and hence to facilitate easy introduction of the airway tube and as a precautionary measure to avoid aspiration he extracted the tooth. Though in the medical records note was given regarding the placement of the airway tube, no mention was made regarding the extraction of the tooth. Thus, the socket and the adjacent gums showed evidence of fresh injury during autopsy examination. The lacerated wound on the right margin of the tongue was actually a tongue bite produced during convulsions. Convulsion as a result of cerebral hypoxia is a well noted fact in case of hanging.^{10,14}

Thus, the iatrogenic injuries produced during treatment led to a suspicion of homicide as there was no proper documentation. Matters were further complicated by the fact that the physician at the rural hospital instead of stating – “ligature mark on the neck” incorrectly noted it as – “strangulation mark on the neck”. Hence the inappropriate and improper use of terminology of medicolegal significance, lack of proper documentation and the iatrogenic injuries led to unnecessary suspicion in the mind of the police resulting in the delay in the investigation and harassment of the family members. Such misinterpretation of facts due to incorrect documentation may sometimes lead to legal consequences against the physician under IPC (Indian Penal Code) Sec. 192, 194 and 195. (Fabricating false evidence/Fabricating false evidence with

intent to procure conviction of capital offence/Fabricating false evidence with intent to procure conviction of offence punishable with imprisonment for life or imprisonment.)¹⁵

4. Conclusion

The present case emphasizes the need of proper medico-legal training for all medical practitioners especially at the rural hospitals. The importance of medical documentation and its relevance in medicolegal autopsies can never be under estimated as negligence in medical documentation may have far reaching consequences.

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